

ABSTRACT OF THE DISCLOSURE

A semiconductor device is disclosed which includes a data memory which stores data and a code memory which stores an ECC code corresponding to the data. The  
5 semiconductor device includes an ECC unit which outputs, to the data memory as the data, a test pattern required to test the data memory, and which generates, from the test pattern, code information having an error checking function, and outputs the code information to  
10 the code memory as the ECC code.